**STATISTICAL PARAMETERS ANALYSIS CODE FOR WITHOUT TUMOR:**

clc;

a=load('antennawotumor.txt');

db1=a(:,2);

freq=a(:,1);

figure;

plot(freq,db1, 'r');

%mean

M=mean(a);

%median

m1=median(a);

%mode

m2=mode(a);

%variance

V=var(a);

%standard deviation

S = std(a);

%skewness

Y = skewness(a);

%kurtosis

K = kurtosis(a);

%rms

R = rms(a);

%max value

m = max(a);

%crest factor

C=m/R;

%min

m3=min(a);

%max

m4=max(a);

%correlation coefficient

r1 = corrcoef(a);

%covariance

c1 = cov(a);

**STATISTICAL PARAMETERS ANALYSIS CODE FOR WITH TUMOR:**

clc;

b=load('antennawtumor.txt');

db1=b(:,2);

freq=b(:,1);

figure;

plot(freq,db1, 'g');

%mean

M=mean(b);

%median

m1=median(b);

%mode

m2=mode(b);

%variance

V=var(b);

%standard deviation

S = std(b);

%skewness

Y = skewness(b);

%kurtosis

K = kurtosis(b);

%rms

R = rms(b);

%max value

m = max(b);

%crest factor

C=m/R;

%min

m3=min(b);

%max

m4=max(b);

%correlation coefficient

r1 = corrcoef(b);

%covariance

c1 = cov(b);

**MEAN CODING:**

clc;

a=load('sta\_mean.txt');

Mean1=a(:,3);

values=a(:,1);

figure;

bar(values,Mean1);

**MEAN PLOT VALUES:**

1 9.999999719 -12.24

2 9.999999719 -13.28702932

3 9.999999719 -13.29741501

4 9.999999719 -13.29304115

5 9.999999719 -13.30591563

6 9.999999719 -13.26611528

7 9.999999719 -13.32171898

8 9.999999719 -13.28093548

9 9.999999719 -13.2863800

**MEDIAN CODING:**

clc;

a=load('sta\_median.txt');

Median1=a(:,3);

values=a(:,1);

figure;

bar(values,Median1);

**MEDIAN PLOT VALUES:**

1 10 -10.545259

2 10 -12.17841

3 10 -12.164191

4 10 -12.220494

5 10 -12.169069

6 10 -12.270272

7 10 -12.330421

8 10 -12.056046

9 10 -12.083577

**MODE CODING:**

clc;

a=load('sta\_mode.txt');

Mode1=a(:,3);

values=a(:,1);

figure;

bar(values,Mode1);

**MODE PLOT VALUES:**

1 0 -53.278161

2 0 -48.81407

3 0 -51.297492

4 0 -51.20911

5 0 -51.381762

6 0 -46.472155

7 0 -51.145957

8 0 -48.749993

9 0 -49.713907

**VARIANCE CODING:**

clc;

a=load('sta\_var.txt');

var1=a(:,3);

values=a(:,1);

figure;

bar(values,var1);

**VARIANCE PLOT VALUES:**

1 33.43339813 57.15194809

2 33.43339813 60.44834968

3 33.43339813 60.16073728

4 33.43339813 60.437711

5 33.43339813 60.56364158

6 33.43339813 60.57688912

7 33.43339813 61.78774303

8 33.43339813 60.08765462

9 33.43339813 61.85915441

**STANDARD DEVIATION CODING:**

clc;

a=load('sta\_stadev.txt');

stadev1=a(:,3);

values=a(:,1);

figure;

bar(values,stadev1);

**STANDARD DEVIATION PLOT VALUES:**

1 5.782162064 7.201030366

2 5.7822 7.7103

3 5.782162064 7.7563353

4 5.782162064 7.774169473

5 5.782162064 7.782264554

6 5.782162064 7.753554019

7 5.782162064 7.860517987

8 5.782162064 7.78684946

9 5.782162064 7.736869807

**SKEWNESS CODING:**

clc;

a=load('sta\_skewness.txt');

skewness1=a(:,3);

values=a(:,1);

figure;

bar(values,skewness1);

**SKEWNESS PLOT VALUES**

1 -1.02E-09 -1.186214039

2 -1.02E-09 -0.9394

3 -1.02E-09 -1.002683189

4 -1.02E-09 -1.0031843963

5 -1.02E-09 -1.008993767

6 -1.02E-09 -0.876283972

7 -1.02E-09 -1.0135318115

8 -1.02E-09 -0.948532823

9 -1.02E-09 -0.981771766

**RMS CODING:**

clc;

a=load('sta\_rms.txt');

rms1=a(:,3);

values=a(:,1);

figure;

bar(values,rms1);

**RMS PLOT VALUES:**

1 11.54989145 14.45923407

2 11.5499 15.3601

3 11.54989145 15.39226698

4 11.54989145 15.39747631

5 11.54989145 15.41267431

6 11.54989145 15.31366009

7 11.54989145 15.46590487

8 11.54989145 15.34313766

9 11.54989145 15.37293887

**MINIMUM VALUE CODING:**

clc;

a=load('sta\_minval.txt');

minval1=a(:,3);

values=a(:,1);

figure;

bar(values,minval1);

**MINIMUM PLOT VALUES:**

1 0 -53.278161

2 0 -48.81407

3 0 -51.297492

4 0 -51.20911

5 0 -51.381762

6 0 -46.472155

7 0 -51.145957

8 0 -48.749993

9 0 -49.713907

**MAXIMUM VALUE CODING:**

clc;

a=load('sta\_maxval.txt');

maxval1=a(:,3);

values=a(:,1);

figure;

bar(values,maxval1);

**MAXIMUM PLOT VALUES:**

1 20 -1.4097133

2 20 -1.2326

3 20 -1.2980227

4 20 -1.2395168

5 20 -1.2597655

6 20 -1.2827153

7 20 -1.2834004

8 20 -1.2145383

9 20 -1.2097204

**KURTOSIS CqODING:**

clc;

a=load('sta\_kurtosis.txt');

kurtosis1=a(:,3);

values=a(:,1);

figure;

bar(values,kurtosis1);

**KURTOSIS:**

1 1.799997603 5.193021555

2 1.8 4.7829

3 1.799997603 5.0298065939

4 1.799997603 5.0349582619

5 1.799997603 5.0141542459

6 1.799997603 4.436943215

7 1.799997603 5.0928408841

8 1.799997603 4.862600376

9 1.799997603 5.02858943

**CREST FACTOR CODING:**

clc;

a=load('sta\_crestfac.txt');

cretfac1=a(:,2);

values=a(:,1);

figure;

bar(values,crestfac1);

**CREST FACTOR:**

1 0.614987582

2 0.57

3 0.569824067

4 0.571990662

5 0.570376536

6 0.574476936

7 0.566699313

8 0.571642906

9 0.570321992

**COVARIANCE CODING:**

clc;

a=load('sta\_covar.txt');

covar1=a(:,3);

values=a(:,1);

figure;

bar(values,covar1);

**COVARIANCE :**

1 33.43339813 -8.481574227

2 33.43339813 -15.68071411

3 33.43339813 -15.62508933

4 33.43339813 -15.6919399

5 33.43339813 -15.72476233

6 33.43339813 -15.65834788

7 33.43339813 -15.67401908

8 33.43339813 -15.59864564

9 33.43339813 -15.68816913

**CORRELATION COEFFICIENT:**

clc;

a=load('sta\_correlation.txt');

correlation1=a(:,3);

values=a(:,1);

figure;

bar(values,correlation1);

**CORRELATION COEFFICIENT:**

1 1 -0.19072239

2 1 -0.351726974

3 1 -0.348398017

4 1 -0.349085952

5 1 -0.349452249

6 1 -0.353828267

7 1 -0.34485692

8 1 -0.350952432

9 1 -0.350684615